

The delay in the publication of this Report is partly accounted for by the fact that it has been in the hands of the publishers since early December 1919.

County Borough of West Hartlepool.



REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1918.

West Hartlepool:

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1919.

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Public Health Department,

Municipal Buildings,

West Hartlepool.

**To the Mayor, Aldermen and Councillors of the
County Borough of West Hartlepool.**

Mr. Mayor and Gentlemen,

I have the honour of submitting to you the Annual Report on the work of the Public Health Department for the year 1918.

For the greater part of the year I was absent from the Borough on Military Service, and during this time the work was carried on by Dr. Jubb. To Dr. Jubb, I am deeply indebted for his kind and ready help.

I have again to express my thanks to the Chairman and Members of the Health Committee for the consideration and support extended to the staff of this department and to myself during the year.

I am, Gentlemen,

Your Obedient Servant,

HERBERT M. CARGIN, M.D., D.P.H.



Report of the Medical Officer of Health

FOR THE YEAR 1918.

POPULATION.

An accurate estimate of the population at the present time is not possible other than by a Census.

A conservative estimate of 68,000 has been arrived at for the year 1918 in the following manner:—

The inhabited houses in the Borough during the year were 14,000. Of these it is estimated that at least 60% or 8,400 are houses of the smaller variety, occupied by an average number of 5 persons per house = 42,000 persons. The occupants of the remaining 6,000 larger houses are taken at the 1911 Census figure of 4.3 =

25,800

67,800

This estimate is supported by the figures of the ration tickets issued in January 1919 (62,736) added to the number of names on the "Absent Voters List," (6,658). The estimate of 68,000 has been adhered to for the purposes of this report.

MARRIAGES.

The marriages recorded were 622. A considerable increase as compared with the two previous years.

The following are the marriage statistics for the past five years:-

Year.	Number of Marriages.			Marriage Rate.
1914	...	664	...	20.4
1915	...	722	...	22.2
1916	...	587	...	18.06
1917	...	530	...	16.3
1918	...	622	...	18.29

BIRTHS.

1,529 Births were registered. To these have to be added 18 "Transferred" births of West Hartlepool residents which occurred in other areas, making a total of 1,547, a slight increase over the births for the previous year (1,473).

The sex of the children born was:—

Males	Females	Total
798	749	1,547

The illegitimate births were 93, 37 males and 56 females, giving an illegitimate rate of 6.01% of the total births as compared with 3.6% for 1917 and 4.6% for 1916.

From the year 1913 the birth rates in West Hartlepool and in England and Wales are given below:—

WEST HARTLEPOOL.					ENGLAND & WALES.	
Year.		No. of Births,		Birth Rate.		Birth Rate
1913	...	1,922	...	29.57	...	23.9
1914	...	1,894	...	29.13	...	23.8
1915	...	1,685	...	25.92	...	21.8
1916	...	1,664	...	25.6	...	21.6
1917	...	1,473	...	22.6	...	17.8
1918	...	1,547	...	22.75	...	17.7

The Birth rate in each Ward, with the percentage of births in the Ward to the total births are as follows:—

Ward.	Estimated Population.	No. of Births.	Percentage of Total Births.	Birth Rate per 1,000.
North	... 10,245 ...	181	... 11.7 ...	17.6
West	... 11,122 ...	204	... 13.1 ...	18.3
Park	... 9,152 ...	141	... 9.1 ...	15.4
South-West	... 15,236 ...	231	... 14.9 ...	15.1
South-East	... 7,628 ...	247	... 15.9 ...	32.5
Central	... 9,064 ...	230	... 14.8 ...	25.5
North-East	... 3,056 ...	180	... 11.5 ...	58.8
Seaton	... 2,497 ...	115	... 7.4 ...	46.0
<hr/>		<hr/>		
68,000		1,529		
		+ 18	Transferred Births	
		<hr/>		
		1,547		
		<hr/>		

STILL BIRTHS.

78 Still Births were notified, as compared with 81 for 1917. Equivalent to 5.04% and 5.4% respectively of the total births. In terms of 1,000 births per annum, the Still Births were 50.4.

The notifications of still birth were received from:—

	Numbers
Doctors ...	53
Midwives ...	24
Handywomen ...	1

NOTIFICATION OF BIRTHS.

Out of a total of 1,529 births registered (exclusive of transferred births), 1411 were notified leaving 118 unnotified or 7.7% of the births unnotified.

This figure (7.7%) compares unfavourably with 1.2% for the year 1917. The reason for this failure to carry out the notifications of Births Act, was in part due to the absence of so many of the doctors on Military Service, and the consequent overworking of those who were left in the Borough, especially during the Influenza Epidemic.

The notifications were received from the following sources:—

				Numbers.
Doctors ...	...	...	...	854
Midwives	...	...	...	551
Handywomen	...	...	...	5
Parents ...	...	...	...	1
Unnotified	...	...	...	118
Total ...				1,529

Visits were paid by the Health Visitors to 1,209 newly born babies. Thus 78.1% of the total births were visited, as compared with 69% for 1917.

Many more visits would have been paid to these infants had the Influenza Epidemic not occurred, as during these epidemics the nurses devoted the whole of their time to helping the sufferers.

NATURAL INCREASE OF POPULATION.

The natural increase of the population, or the excess of births over deaths was 52. For the previous year it was 564. This decline is due to two causes namely; the low birth rate, and the extremely high death rate caused by the Influenza Epidemics.

The rate for the years 1918 and 1917 respectively is .7 and 8.6 per 1,000 of the population.

DEATHS.

The deaths of West Hartlepool residents registered during the year were 1,495—the deaths for the two previous years were, 1917—909, and 1916—937. Of those who died during 1918, 749 were males and 746 were females.

The figures only refer to deaths amongst the civilian population.

189 of the deaths took place in other areas. These include 141 who died in the Hartlepool Workhouse and Hospital, 5 who died in the Infectious Diseases Hospital, and 43 who were transferred from other districts.

The death rate is 21.9 per 1,000 of the population.

The following are the deaths and death rates for previous years :—

Year	WEST HARTLEPOOL		ENGLAND & WALES.	
	Number of Deaths.	Death Rate.	Death Rate.	
1911	1,007	15.64	14.6	...
1912	939	14.89	13.3	...
1913	1,027	15.98	13.7	...
1914	1,037	15.9	14.0	...
1915	1,144	17.6	15.1	...
1916	937	14.41	14.0	...
1917	909	13.9	14.4	...
1918	1,495	21.9	17.6	...

It will be seen that the death rate for 1918 is considerably higher than for any previous year since 1911. 251 deaths, (a total death rate of 3.6 per 1,000 of the population), were alone due to Influenza, while large increases in the number of deaths from Bronchitis and Pneumonia—often direct sequelæ of Influenza, were recorded. There is reason to believe that very many of the other deaths, not only in adults, but amongst the infants were considerably increased in number owing to the Influenza Epidemic.

Total deaths in Wards :—

Ward.	Population.	Deaths.	Death Rates.
North	10,245	124	12.15
West	11,122	135	12.16
Park	9,152	153	16.59
South-West	15,236	192	12.63
South-East ..	7,628	195	25.65
Central	9,064	275	30.55
North-East	3,056	146	48.66
Seaton	2,497	86	35.83
Total	68,000	1,306	

Of the total deaths 18 occurred amongst the illegitimates, equivalent to 1.2% of the total deaths.

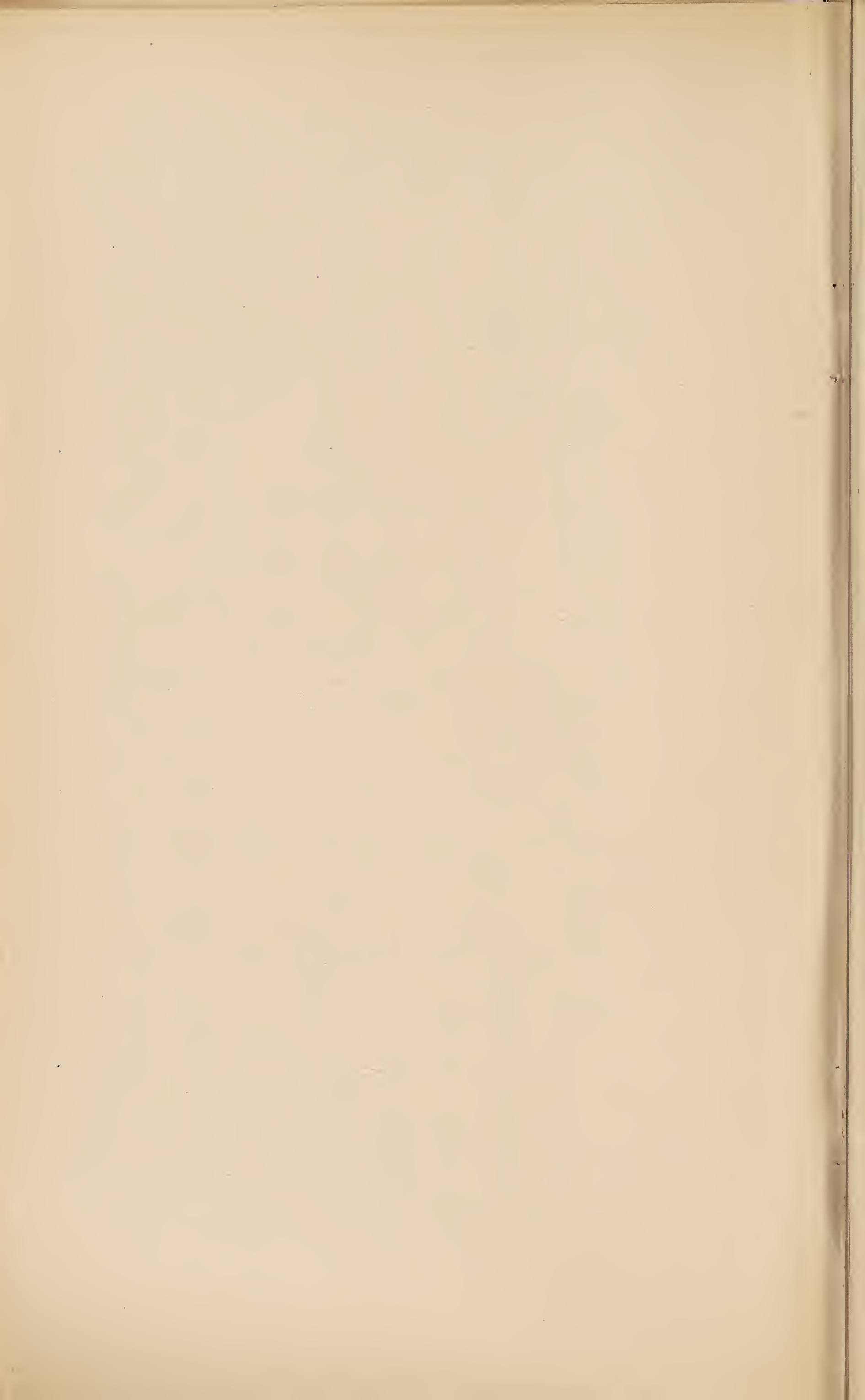
TABLE SHEWING CAUSES OF, AND AGES AT DEATH.

CAUSE OF DEATH.	Nett. Deaths at the Subjoined Ages of "Residents" whether occurring within or without the District.														Total Deaths whether of "Residents or Non-Residents" in Institutions in the District.	Increase or Decrease as compared with 1917.
	whether															
	Under 1 year	1 and under 2	2 and under 3	3 and under 4	4 and under 5	5 and under 10	10 and under 15	15 and under 20	20 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and upwards		
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Measles ...	57	16	10	8	8	2	...	...	...	...	...	...	...	...	...	+ 4
Scarlet Fever ...	3	...	...	...	...	2	1	...	...	...	...	...	...	...	...	+ 3
Whooping Cough ...	33	12	6	5	2	2	...	...	...	...	...	...	...	...	...	+ 31
Diphtheria and Membraneous Croup ...	9	...	3	2	3	1	...	...	...	...	...	...	...	...	...	+ 7
Croup ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
is { Typhus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Enteric ...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	+ 1
Other Continued ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Epidemic Influenza ...	251	7	17	8	9	26	12	14	21	53	21	23	19	14	2	+ 245
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Diarrhoea and Enteritis (under 2 years) ...	69	54	15	...	...	...	...	...	...	1	...	...	...	...	...	+ 56
Puerperal Fever ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Other Septic Diseases ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Phthisis ...	75	...	1	...	...	...	5	12	9	20	12	14	1	1	...	+ 5
Tuberculous Meningitis ...	13	1	...	...	1	3	1	1	1	...	...	...	...	...	...	5
Other Tuberculous Disease ...	18	1	5	3	2	1	2	3	...	...	...	1	...	...	...	14
Cancer, malignant disease... 50	...	...	...	...	...	...	...	...	...	1	5	12	17	15	1	+ 1
Bronchitis ...	107	29	11	1	...	1	1	...	1	2	...	5	17	34	...	+ 36
Pneumonia ...	216	18	35	13	7	13	6	7	4	14	18	15	18	21	4	+ 118
Cerebro-Spinal Meningitis ...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	same
Poliomyelitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Pleurisy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Other Respiratory Diseases ...	13	...	1	...	...	...	...	1	...	3	...	5	1	2	...	+ 2
Alcoholism and Cirrhosis of Liver ...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2
Venereal Diseases ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	+ 1
Atrophy ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	same
Debility ...	22	22	...	...	...	...	...	...	...	...	...	...	...	...	...	+ 12
Marasmus ...	28	25	3	...	...	...	...	...	...	...	...	...	...	...	...	+ 10
Premature Births ...	48	48	...	...	...	...	...	...	...	...	...	...	...	...	...	+ 11
Diseases and Accidents of Parturition and Pregnancy ...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2
Heart Disease ...	74	1	...	...	...	...	...	2	1	4	10	11	13	32	...	7
Nephritis & Bright's Disease ...	34	...	...	...	1	...	2	4	3	3	6	1	4	8	1	+ 7
Other Violent Deaths ...	22	3	1	1	2	3	1	...	...	...	2	1	3	4	1	12
Suicides ...	5	...	...	...	...	...	...	...	...	...	1	...	2	2	...	2
Accidents ...	24	1	1	...	...	2	2	2	2	6	1	2	2	2	9	+ 22
Appendicitis ...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	4
All Other Causes ...	317	20	14	4	4	7	6	8	4	7	18	25	37	157	9	+ 59
TOTAL NET DEATHS	1495259	113	81	45	39	64	39	56	46	115	96	115	135	292	28	+ 586

THE DEATHS AS THEY OCCURRED IN THE WARDS.

CAUSE OF DEATH.	WARDS							Trans-ferable Deaths (Work-house)	Other Trans-ferable Deaths	Total
	North	West	Park	So West	So East	Central	N. East	Seaton		
Small Pox	...	...	...	...	...	...	...	...	...	...
Measles	5	2	4	9	15	10	6	6	...	57
Scarlet Fever	...	...	...	...	1	...	1	...	1	3
Whooping Cough	3	2	5	5	3	7	4	2	2	33
Diphtheria and Membranous Croup	...	...	...	3	2	...	2	...	2	9
Croup	...	...	...	...	...	...	...	...	...	...
Typhus Enteric Other continued	...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	1	1

Epidemic Influenza	30	25	24	30	41	39	31	17	5	251
Cholera	...	...	...	...	...	...	...	...	...	...
Plague	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis	...	...	...	...	...	...	...	...	...	...
(under 2 years)	8	8	5	8	12	15	5	7	1	69
Puerperal Fever	...	...	...	...	...	...	1	...	...	1
Erysipelas	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases	...	...	...	...	...	...	...	...	...	...
Phthisis	3	3	3	12	10	17	6	11	4	75
Tuberculous Meningitis	1	2	1	2	2	2	...	...	2	13
Other Tuberculous Disease	3	...	...	7	2	2	...	3	...	18
Cancer, malignant disease	3	7	9	5	2	10	6	1	2	50
Bronchitis	13	8	11	13	19	17	7	7	1	107
Pneumonia	12	21	29	27	27	41	23	11	6	216
Cerebro-Spinal Meningitis	...	...	...	...	...	...	...	...	1	1
Polio-myelitis	...	...	...	...	...	...	...	...	...	...
Pleurisy	...	...	...	...	...	...	...	...	...	...
Other Respiratory Diseases	1	...	2	1	1	6	1	...	1	13
Alcoholism and Cirrhosis of Liver	...	...	...	1	...	...	...	...	...	1
Venereal Diseases	...	...	...	...	...	...	...	...	...	1
Atrophy	...	...	...	...	...	...	...	...	...	...
Debility	2	1	2	5	3	4	2	1	1	22
Marasmus	3	5	1	2	6	7	3	...	...	28
Premature Births	9	4	4	10	3	10	4	4	...	48
Diseases and Accidents of Parturition and Pregnancy	...	1	...	...	...	...	...	...	...	1
Heart Disease	8	11	8	9	7	13	6	3	3	74
Nephritis and Bright's Disease	2	5	7	2	4	3	6	...	2	34
Other Violent Deaths	1	...	3	1	2	8	3	1	1	22
Suicides	1	...	...	...	1	...	...	2	1	5
Accidents	1	...	2	3	4	8	1	...	5	24
Appendicitis	...	1	...	...	...	...	...	...	...	1
All Other Causes	15	29	33	37	28	56	28	10	16	317
TOTAL NET DEATHS	124	135	153	192	195	275	146	86	58	1495



INQUESTS AND UNCERTIFIED DEATHS.

77 Inquests were held, and 20 uncertified deaths occurred during 1918.

INFANTILE MORTALITY.

There were 259 deaths of children under one year of age; compared with 151 for 1917, and 187 for 1916.

These deaths for 1918 are equivalent to an infantile mortality rate of 167.4 per 1,000 births. The rate for the preceeding year was 102.7.

The infantile mortality rate amongst legitimate children was 165.6 and amongst the illegitimate children 193.5 per 1,000 births.

Of the total deaths under one year, 11 were of illegitimate children.

INFANTILE MORTALITY RATES.

WEST HARTLEPOOL			ENGLAND & WALES.	
Year		Rate		Rate
1911	...	127	...	130
1912	...	103	...	95
1913	...	136	...	109
1914	...	111	...	105
1915	...	153	...	110
1916	...	112	...	91
1917	...	102.7	...	97
1918	..	167.4	...	97

The principal causes of death amongst the infants for the years 1917 and 1918 are set out below:—

Disease.	Number of Deaths				Increase or Decrease as compared with 1917.
	1917		1918		
Atrophy, Debility, etc. ...	25	...	47	...	+22
Premature Births ...	36	...	48	...	+12
Bronchitis ...	15	...	29	...	+14
Pneumonia ...	20	...	18	...	— 2
Measles ...	11	...	16	...	+ 5
Gastritis and Enteritis ...	11	...	54	...	+43
Convulsions ...	10	...	13	...	+ 3
Tuberculosis (all forms)...	8	...	2	...	— 6
Whooping Cough ...	1	...	12	...	+11
All other causes ...	14	...	20	...	+ 6
	<hr/> 151		<hr/> 259		<hr/> +108

It will be noticed that the only cause of death in which there is a reduction in the number of deaths is Tuberculosis, all other causes shew a marked increase.

Deaths from the causes stated are likely to be materially increased by such a debilitating disease as Influenza.

The sexes of the children who died were:—

Males ... 152 — 58.69% of the infant deaths.

Females ... 107 — 41.31% of the infant deaths.

Deaths of Infants occurred in the Wards, and from the causes as set out below.

DISEASES.	North	West	Park	S. West	S. East	Central	N. East	Seaton	Deaths in Work-house	Other Transferable Deaths	Total
Atrophy, Debility and Marasmus	5	5	3	7	8	10	5	1	2	1	47
Premature Births	9	4	4	10	3	10	4	4	...	...	48
Bronchitis ...	7	2	2	2	7	6	1	2	...	...	29
Pneumonia ...	1	2	1	4	6	3	1	...	...	...	18
Measles ...	1	1	1	1	6	2	3	1	...	...	16
Gastritis and Enteritis ...	8	7	5	7	6	11	3	6	...	1	54
Convulsions ...	2	2	...	...	1	4	4	...	...	...	13
Tuberculosis ...	...	...	1	1	...	...	...	...	...	...	2
Whooping Cough	1	1	3	2	...	2	1	2	...	...	12
All other causes	1	1	4	2	4	3	2	2	...	1	20
Total ...	35	25	24	36	41	51	24	18	2	3	259

The deaths from Gastritis and Enteritis were 54, whilst Convulsions and Atrophy Debility etc., accounted for a further 60 infants, making a total of 114 deaths.

Of these it may be assumed most were preventable. The only method of safeguarding the children against these diseases is by teaching the mothers how to feed and tend their children. For this purpose other maternity and infant centres are required in outlying parts of the Borough where consultations may be held, and where a doctor may be consulted.

Education of the potential mothers must also take place, and already instruction is given in at least one of the schools of the Borough on mothercraft for girls about to leave school. It is not sufficient that in one school only this subject should be taught and the Education Authority should require that instruction on mothercraft is given in all the girls schools on this subject during the last two years of school life.

PREVENTION OF INFANTILE MORTALITY.

An Epidemic of Measles which visited the Borough during the year again necessitated that the attention of the Health Visitors was largely occupied in looking after the victims. Later in the year, Influenza occupied their attention to the exclusion of other important work.

In face of these difficulties 78% of the children born in the Borough were visited by the Health Visitors.

VISITS PAID TO NEWLY BORN CHILDREN.

Births notified.	Primary Visits.	Secondary Visits.	Total Visits.
1,547	1,209	1,399	3,608

THE MATERNITY AND INFANT WELFARE CENTRE.

The work of this Centre is carried on at the Mill House Stranton in the rooms used by the Local Education Authority for the School Clinic.

Owing to the absence of Medical Assistance it has not been possible to start other infant welfare centres in the Borough, though it is considered that they are necessary.

Voluntary Workers at the Centre.

The band of Ladies attending at the centre each week, providing refreshments for the mothers and older children and assisting in the work of the centre have made themselves practically indispensable, and much of the success of the centre is due to their cheerful assistance.

Infant Attendances at the Centre.

226 born during 1918 attended on 891 occasions. 6 of the children who first came to the centre in 1916 made 17 attendances, while 31 children who first visited the centre in 1917, made 101 appearances, giving a total of 1,009 attendances.

The following are the remarks against the names of the children coming to the centre :—

	Number.		Number.
Healthy ...	123	Bronchitis ...	5
Sickness, etc. (due to		Scabies ...	8
improper food) ...	24	Eczema, etc. ...	13
Rickets ...	17	Hernia ...	3
Phimosis ...	24	Other Causes ...	51
Assistance required to			—
obtain Milk ...	20	Total ...	288

85 children over one year of age attended the centre.

ANTE-NATAL WORK.

11 Expectant Mothers attended at the Consultation Centre.

The reasons for attendance were as follows :—

	No. of Cases		Recommendation
Insufficient Nourishment	4	...	Milk
Prolapsus Uteri	1	...	Private Practitioner.
Varicose Veins, etc	1	...	„ „
Bronchitis ...	2	...	Medicine and Private Practitioner.
Specific Disease	1	...	Hospital.
Inability to get Milk	1	...	Priority Certificate.

INFANT MORTALITY DURING THE YEAR 1918.

Deaths from stated causes at various ages under 1 year of age.

CAUSE OF DEATH.	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	1 month & under 3 months	3-6 months	6-9 months	9-12 months	Total Deaths under 1 year
Small Pox ...	...	...	...	...	...	...	...	...	...	...
Chicken Pox ...	...	...	...	...	...	...	...	1	...	1
Measles ...	...	...	...	...	...	...	4	6	6	16
Scarlet Fever ...	...	...	...	...	...	3	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	2	6	1	12
Diphtheria and Membranous Croup ...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	...	...	...	...	...	...	1	...	...	1
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	1
Abdominal Tuberculosis ...	...	...	...	...	...	...	...	...	1	1
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	1	1	6	4	1	1	13
Convulsions ...	...	...	...	...	...	...	...	...	...	...
Laryngitis ...	...	1	...	1	2	4	8	9	6	29
Bronchitis ...	...	...	...	...	...	...	4	9	5	18
Pneumonia ...	...	...	...	...	...	4	6	4	4	18
Diarrhoea ...	...	...	1	1	2	6	10	7	8	33
Enteritis ...	...	...	...	...	1	1	...	1	1	3
Gastritis ...	1	...	...	...	1	...	...	...	...	1
Syphilis ...	...	...	...	...	...	...	...	...	...	...
Rickets ...	...	...	...	...	...	...	...	...	...	...
Suffocation (Overlying)	...	...	...	...	...	...	...	...	...	...
Injury at Birth	...	...	...	...	...	...	...	...	...	...
Atelectasis ...	...	...	...	...	...	...	...	...	...	...
Congenital Malformation	...	...	...	...	...	...	...	...	...	...
Premature Birth	30	6	3	3	42	6	...	...	...	48
Atrophy, Debility, and Marasmus ...	9	5	6	5	25	11	7	2	2	47
Other Causes ...	4	...	1	...	5	3	1	6	3	18
Totals ...	44	12	11	11	78	44	47	52	38	259
... Certified ...	41	12	11	10	74	42	47	51	38	252
... Uncertified	3	...	...	1	4	2	...	1	...	7



It is unfortunate that more time cannot be given to this work, as undoubtedly much ill-health and suffering could be prevented amongst pregnant women, and the lives of some could probably be saved.

The recommendation of the Ministry of Health is that a Lady Doctor should be appointed for this work, and the services of such an officer could be utilized with advantage for these duties.

Under the Milk (Mothers and Children) Order which came into operation in February, 1918, 92 pints of milk were supplied gratis to nursing and expectant mothers and infant children.

Priority Certificates amounting to 27 were given to enable a sufficient supply of Milk to be obtained for mothers and infants.

Dried Milk continues to be supplied from the centre either free of cost to necessitous cases or at cost price. 930 lbs were sold in this manner during the year, and a considerable quantity was disposed of free of charge. 46 tins of other prepared milk were also disposed of.

Sugar to the extent of $59\frac{1}{2}$ lbs. was obtained through the Food Controller and was sold or given to mothers unable to obtain a sufficient supply through the ordinary sources.

The Maternity and Child Welfare Act of 1918, gives Local Authorities increased scope for providing for mothers and children.

Grant to the extent of 50% is now available from the Board for the following additional services :—

1. Hospital treatment for children up to the age of 5 years who may be suffering from ordinary ailments or from Ophthalmia Neonatorum or Epidemic Diarrhœa.
2. Lying in homes for Expectant Mothers or for Mothers with Complications arising after confinement.

3. Home helps, who would carry out the domestic duties in a home during and after the confinement of the Mother.
4. The provision of food for Expectant and Nursing Mothers and for children under 5 years of age.
5. Crèches and Day Nurseries.

The necessity for these institutions has diminished with the diminution in the employment of female labour, but there are still many mothers with children who require to work and others who are anxious to supplement a slender income, but who are prevented from doing so by their young children. For these people such institutions would be of great assistance.

6. Convalescent Homes for Mothers after confinement, or for children, especially after Measles and whooping cough.
7. Homes for children of widowed and deserted Mothers and for illegitimate children.
8. Any new proposal for work promoting the health of the Mother or Child and receiving the approval of the Board.

The importance is emphasised of providing trained nurses to carry on the home nursing for Expectant Mothers, maternity nursing, the nursing of puerperal fever, and the nursing of measles, whooping cough and epidemic diarrhoea in young children and ophthalmia neonatorum.

These services could be provided by arrangements with the District Nursing Association and steps should be taken to secure the necessary nursing assistance.

Arrangements already exist in the Borough for the provision of medical assistance or the assistance of a Midwife in cases of confinement, the fee being paid in necessitous cases by the Corporation.

INFECTIOUS DISEASES.

The notification of these diseases were as follows :—

Disease.	Civilian Population.		Military.
Scarlet Fever...	...	116	1
Diphtheria	31	1
Erysipelas	29	2
Ophthalmia Neonatorum	41	—
Typhoid Fever	5	2
Cerebro-Spinal Meningitis	...	2	1
Puerperal Fever	4	—
Measles	1823	12
Pulmonary Tuberculosis	173	2
Other Tuberculous Diseases	...	86	1
Poliomyelitis	—	—
Total ...		2,310	22

The following cases were reported through the Education Authority :—

Number of Cases.		
Whooping Cough ...	...	43
Chicken Pox ...	...	13
Mumps ...	...	94
Total ...		150

The following is the record of the deaths from the more important infectious diseases for the past three years :—

Disease.	1918.		1917.		1916.	
	No. of Deaths		No. of Deaths.		No. of Deaths.	
Typhoid	1	...	—	...	6
Measles	57	...	53	...	—
Scarlet Fever	3	...	—	...	—
Whooping Cough	...	33	...	2	...	8
Diphtheria and Croup	...	9	...	2	...	8
Influenza	251	...	6	...	6
Erysipelas	—	...	—	...	1
Pulmonary Tuberculosis	...	75	...	70	...	60
Other Forms of Tuberculosis	...	31	...	50	...	49
Diarrhoea and Enteritis	...	69	...	13	...	21

ZYMOTIC DEATH RATE.

The deaths from the seven principal zymotic diseases were 172, Small Pox—0, Scarlet Fever—3, Diphtheria—9, Typhoid Fever—1, Measles—57, Whooping Cough—33, and Diarrhœa—69. This is equivalent to a death rate of 2.5 per 1,000 of the population. In the previous year the death rate was 1.0 per 1000, and for 1916—.66 per 1,000.

SMALL POX.

No cases of this disease have occurred since 1912.

VACCINATION.

The number of births and the number of children vaccinated show a greater disproportion than for the year 1917.

The following are the figures :—

Births Registered	...	...	1,529
Conscientious Objectors to Vaccination			397
Children Successfully Vaccinated	...		838
„ Died Unvaccinated	...		128
„ Insusceptible	...	...	2
Vaccination Postponed on Medical Certificate			65
Children Removed to other Districts	...		7
„ Lost sight of	...	...	13
„ Still under notice to be Vaccinated			79

The percentage of children unvaccinated owing to the objections of their parents is therefore 25.9% as compared with 24.7 for the year 1917.

TYPHOID FEVER.

Five civilian cases and two military cases were notified. An attempt is always made in these cases to discover the source of infection, and in one instance shell fish procured from a street vendor seemed to be the cause of the disease, two other cases gave a history of drinking road-side water, one case appeared to be a contact, and one gave no history indicating the source of disease.

The number of cases with the deaths and death rates in West Hartlepool and in England and Wales are shown for the past 5 years—

Year.	Number of Cases.			Deaths.	Death Rate.		Death Rate England and Wales.	
1914	...	16	...	3	...	.04	...	.05
1915	...	11	...	1	...	.01	...	.04
1916	...	8	...	6	...	.09	...	.03
1917	...	0	...	0	...	0	...	.03
1918	...	5	...	1	...	.01	...	.03

SCARLET FEVER.

During 1918, there were 116 civilian cases notified and 1 military case.

The figures for 1917 and 1916 are 32 and 61 respectively.

Among the civilian cases, there were 3 deaths, giving a mortality rate of 2.5, the rate for the preceding year being nil.

The Ward distribution of the cases was as follows :—

North.	West.	Park.	S. West.	S. East.	Centrl.	N. East.	Seaton.	Total
10	8	10	15	26	29	12	6	116

The ages of the patients are stated below :—

Age.	Number of Cases.	
Under 1 year	...	1
1 to 2 years	...	3
2 to 3 „	...	2
3 to 4 „	...	5
4 to 5 „	...	10
5 to 10 „	...	56
10 to 15 „	...	25
Over 15 „	...	14

Total ... 116

41 of those suffering from this disease were removed to the Port Sanitary Infectious Diseases Hospital.

There were no return cases of this disease amongst the patients treated in Hospital or nursed at home.

17 Secondary cases occurred, in 12 households the first patient was nursed at home and in 5 the primary case was removed to hospital. Of these secondary cases 4 were removed to hospital leaving 13 to be nursed at home.

Although enquiries are always made in cases of scarlet fever with the object of discovering the source of infection, in many cases nothing definite can be found. In some instances unsuspected cases were found to be suffering from the disease and were the direct cause of spread to others in the house. Nothing in the nature of milk borne disease was found during the year.

DIPHTHERIA.

31 cases were notified. For 1917 and 1916, the figures were 25 and 36 respectively.

9 deaths occurred giving a mortality rate of 29.03 as compared with a mortality rate of 8 for 1917 and 22.2 for 1916.

The disease occurred in the Wards as follows :—

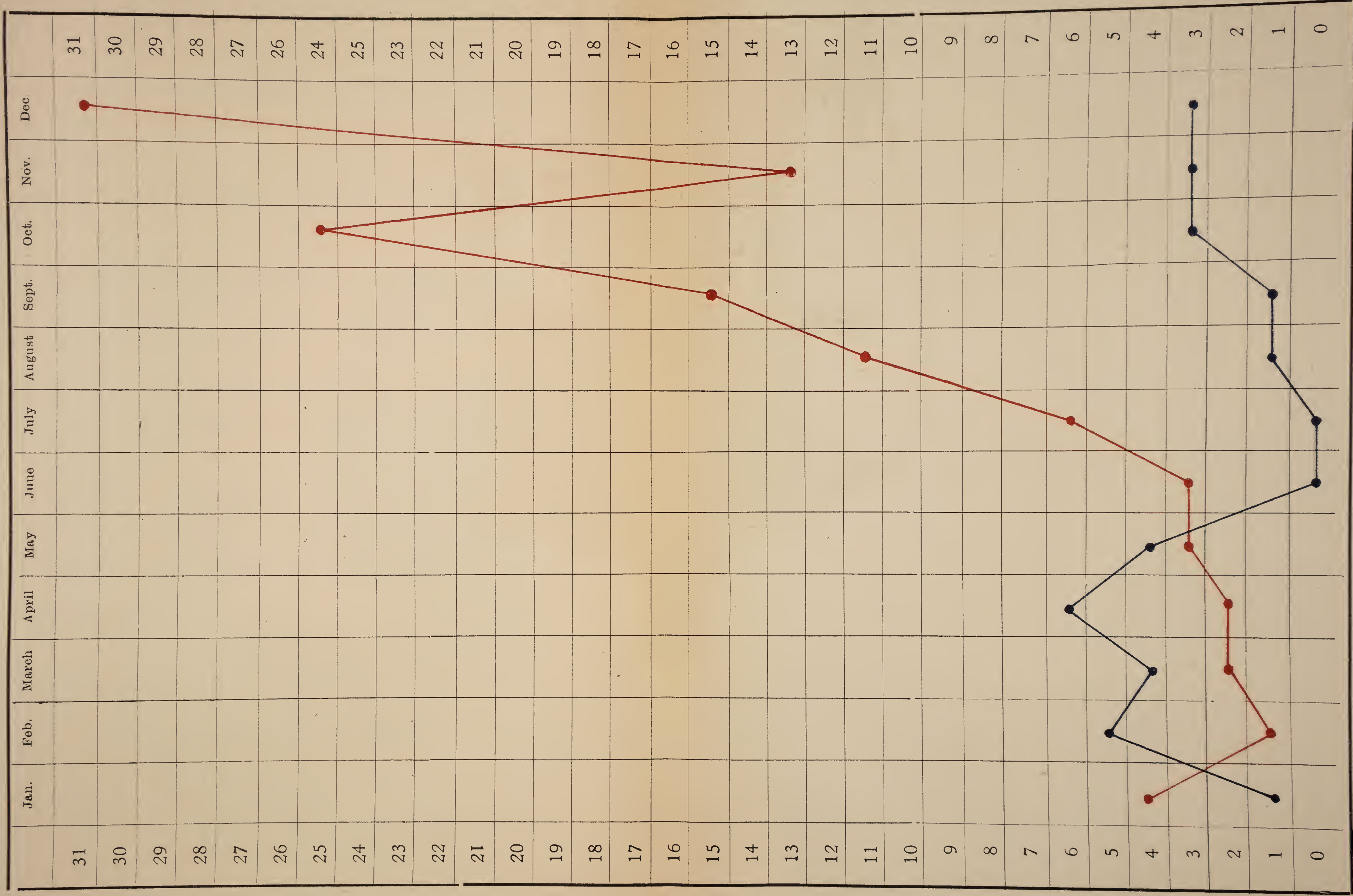
North	West.	Park.	S. West.	S. East.	Central.	N. East.	Seaton.	Total.
7	3	2	5	3	4	6	1	31

AGE INCIDENCE.

Age.	No. of Cases.	Deaths.	Percentage of Deaths. to Cases
Under 1 year	...	—	—
1 to 2 years	...	3	100%
2 to 3 „	...	—	—
3 to 4 „	...	2	50%
4 to 5 „	...	3	75%
5 to 10 „	...	1	11%
10 to 15 „	...	—	—
15 years and upwards ...	4	—	—
Total	31	9	29.03%

Chart showing number of Cases of Scarlet Fever and Diphtheria notified

monthly during the year 1918.



Scarlet Fever in Red. Diphtheria in Black.

Total Cases: Scarlet Fever 116. Diphtheria 31.

4 cases were removed to the Port Sanitary Hospital and of these 1 died.

Amongst the home nursed cases, 8 deaths took place, giving a percentage mortality of 29.6.

Diphtheria Antitoxin is supplied from the Health Department in almost all cases free of charge, as it is recognised to be the most important factor in the cure of this disease.

124,000 units or 62 phials of antitoxin were given out, equal to 4,000 units per patient.

14 Swabs were taken from the noses and throats of persons suspected to be suffering from Diphtheria and were examined in the Health Department. Of these 4 were positive and 10 were negative.

There were no return cases of this disease amongst the patients nursed at home. Infection of other members of the household occurred in two instances.

MEASLES.

Under the Public Health (Measles and German Measles) Regulations, 1915, these two diseases have been notifiable since January, 1916.

1,823 cases were notified.

57 Deaths took place, giving a mortality rate of 3.1%. For 1917 a similar mortality rate obtained.

In addition to the above 12 military cases were notified.

The Ward distribution of the cases was :—

North.	West.	Park	S. West	S. East.	Central.	N. East.	Seaton.	Total.
181	184	250	377	306	241	140	144	1,823

All of the military cases were removed to the Port Sanitary Hospital, while all the civilian cases were treated at home.

Recommendations have been made from the Local Government Board that hospital accommodation should exist for cases of this disease where home isolation and proper treatment cannot be provided. There is little doubt if such hospital accommodation existed, the lives of many of these patients could be saved. Pneumonia and chest complications are the main cause of death in this disease, and by proper care and treatment these complications can largely be avoided or successfully treated if they occur.

No particular School appeared to be specially affected with Measles, though the large number of cases suggested that School closure should be carried out. The Easter holidays took place about the period when the greatest number of cases of the disease occurred, and School closure for the holidays was deemed to be sufficient.

Unless closure of the School or Schools is effected early in the outbreak, before the second crop of cases occur after the initial infection, little is to be expected in the matter of preventing the spread of the disease.

The monthly incidence of the disease was as follows :—

Number of Cases.		Number of Cases.	
January	... 98	May	... 366
February	... 233	June	... 152
March	... 388	July	... 22
April	... 545	August to December 19	

Notifications of the disease came as was to be expected, mainly from the Doctors, these numbered 1611. From parents only 47 cases were notified, while the Health Visitors found 127 cases of the disease.

Many of the parents failed to notify the disease or to call in a doctor, and consequently many cases of the disease amongst children under 5 years of age must have been missed.

The absence of the children from school and consequent visits to their homes by the Health Visitors resulted in 127 cases being discovered. 38 cases were notified by the Education Authority.

It will be seen from the following table it is mainly in very young children that the disease is so fatal.

MEASLES—DEATHS.

Age.				Number of Deaths.	
Under 6 months	...	...	...	4	
„ 9 „	...	...	...	6	
„ 12 „	...	...	...	6	
1 year and under 2 years		...	...	10	
2 years to 3 years	...	...	...	13	
3 „ 4 „	...	...	...	8	
4 „ 5 „	...	...	...	8	
5 „ 6 „	...	...	...	2	
6 „ and upwards	...	...	...	0	
Total				57	

The greatest number of deaths took place during the period of maximum intensity of the disease :—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
Number of Deaths	—	1	5	14	23	12	1	1	57

Special attention has been called by the Board to the importance of the Home Nursing of Children suffering from Measles. Arrangements could be made for this work if the co-operation of the District Nursing Association could be secured.

DIARRHŒA AND ENTERITIS.

There were 69 deaths from these diseases in children under two years of age, as compared with 13 deaths in 1917. 21 deaths in 1916 and 30 deaths in 1915.

The deaths were mainly in the third quarter of the year :—

Total Deaths.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
69	1	1	—	3	1	33	25	3	1	1

This disease in epidemic form is associated with the presence of flies and consequent contamination of food. The period during which most of the deaths occurred corresponds with the 'Fly Season.'

The increase in the number of deaths this year is probably accounted for largely by the difficulty in securing efficient scavenging owing to the labour problem. Flies breed in refuse and garbage of all descriptions and unless these collections are cleared at weekly intervals, the eggs of these insects mature and a great increase in the number of flies results with consequent danger to the infant population.

The home nursing of these children by trained nurses is of primary importance and grant is available from the Board if the Corporation arrange for such nursing.

WHOOPING COUGH.

43 cases were notified through the Education Authority. This disease is not notifiable by the doctors. 33 deaths were ascribed to the disease.

The deaths for the previous years from this cause were :—

1917	1916	1915
2	8	22

The ages at which death took place during 1918 were :—

Under 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	5 to 10 years	Total
12	6	6	5	2	2	33

It will be noticed that in the first 4 years of life, this disease is specially fatal. The difficulty in preventing the spread of Whooping Cough is due to the fact that it is specially infectious before the characteristic signs of the disease appear.

ERYSIPELAS.

There were 29 cases notified in the civil population and 3 military cases. No deaths were ascribed to Erysipelas.

CANCER.

50 deaths took place from Cancer amounting to 3.3% of the total deaths.

The mortality from this cause for the past five years is as follows :—

Year.	Number of Deaths.			Death Rate.
1914	...	64	...	.98
1915	...	59	...	.9
1916	...	74	...	1.13
1917	...	49	...	.75
1918	...	50	...	.73

The ages at which death took place were :—

Age.		Males	Females
25 to 35 years	...	—	1
35 to 45 „	...	2	3
45 to 55 „	...	3	8
55 to 65 „	...	9	7
65 to 75 „	...	9	4
75 years and upwards		3	1
Total	...	26	24

It is unusual for the deaths amongst the males to exceed those amongst the females.

22 deaths were from Carcinoma. 4 from Sarcoma, 5 from Epithelioma, 1 to Rodent Ulcer and 18 from Cancer (no classification).

The ward distribution of deaths was as follows :—

North.	West.	Park.	S. West.	S. East.	Central.	N. East.	Seaton.
3	7	9	5	2	10	6	1

Seven of the deaths of West Hartlepool residents took place in other areas. Total 50;

Parts Affected	Age Sex	Under 35		35 to 45		45 to 55		55 to 65		65 to 75		75 up		Total	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Peritoneum, Intestines and Rectum	—	—	1	—	—	—	1	—	1	—	1	—	4	—
Stomach, Liver, etc.	...	—	—	1	—	2	5	3	4	2	2	1	—	9	11
Reproductive Organs	...	—	—	—	2	—	3	—	3	—	—	—	—	—	8
Breast	—	—	—	1	—	—	—	—	—	1	—	—	—	2
Other Glands	...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mouth	—	—	—	—	1	—	4	—	1	—	1	—	7	—
Bones	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Parts	...	—	1	—	—	—	—	1	—	5	1	—	1	6	3
Totals	...	—	1	2	3	3	8	9	7	9	4	3	1	26	24

Irritation of some sort is probably the reason for the disease beginning, though the actual cause of the disease is still unknown. The treatment of cancer is mainly in the hands of the Surgeons, and all that can be done in preventing the disease becoming fatal is to educate the public to the early signs of cancer and to the danger of neglecting these signs. Notices in the public press and handbills couched simply as possible would secure the spread of desirable information.

CEREBRO SPINAL MENINGITIS.

Two cases of this disease were notified in the civilian population and one military case.

One of the patients died.

One case was a child, whose father was in the army, the child recovered. 10 contacts including the father gave negative swabs.

The patient who died, death took place immediately following notification.

The military case recovered without complications. All contacts were negative.

ACUTE ANTERIOR POLIOMYELITIS.

There were no cases of this disease notified in 1918 or in 1917.

BRONCHITIS AND PNEUMONIA.

There were 216 deaths from Pneumonia and 107 from Bronchitis—the total being 323. The deaths from these diseases form 21.6% of the total deaths and in themselves give a death rate of 4.7 per 1000 of the population.

In the previous year there were 169 deaths from the two diseases. These diseases form the main complications in Influenza and in Measles, and there is no doubt that it is mainly owing to the epidemics of the latter diseases during the year that so many deaths resulted from these chest complaints.

The examples of other towns might well be followed in West Hartlepool, and by arrangements with the District Nursing Association, trained nurses be provided to look after persons suffering from Pneumonia in the homes of the patients. With proper care and attention the lives of many persons suffering from this complaint could be saved.

The deaths for the past five years are set out below:—

Year.	Deaths from Bronchitis.		Death Rate	Deaths from Pneumonia		Death Rate
		Death Rate	England & Wales		Death Rate	England & Wales
1914	63	1.43	1.07	112	1.72	1.07
1915	107	1.64	1.4	142	2.18	1.34
1916	78	1.2	1.25	126	1.93	1.06
1917	71	1.09	1.25	98	1.5	1.14
1918	107	1.57	1.89	216	3.17	1.56

In the Wards the deaths were as follows :—

Disease.	North	West.	Park.	S. West.	S. East.	Central.	N. East.	Seaton.	Trans-ferred Deaths.	Total.
Bronchitis	13	8	11	13	19	17	7	7	12	107
Pneumonia	12	21	29	27	27	41	23	11	25	216

The death rates in the Wards are :—

Disease.	North	West.	Park.	S. West.	S. East.	Central.	N. East.	Seaton.
Bronchitis	1.2	.72	1.2	.85	2.5	1.9	2.3	2.9
Pneumonia	1.2	1.9	3.1	1.7	3.4	4.5	7.6	4.5
Total	2.4	2.62	4.3	2.55	6.0	6.4	9.9	7.4

The ages at which death took place are :—

		Number of Deaths.	
		Bronchitis.	Pneumonia
Under 1 year	...	29	18
1 to 2 years	...	11	35
2 fo 3 „	...	4	27
3 to 4 „	...	1	13
4 to 5 „	...	—	7
5 to 10 „	...	1	13
10 to 15 „	...	1	6
15 to 20 „	...	—	7
20 to 25 „	...	1	4
25 to 35 „	...	2	14
35 to 45 „	...	1	18
45 to 55 „	...	5	15
55 to 65 „	...	17	18
65 and upwards	...	34	21
Totals	...	107	216

The deaths from Bronchitis and Pneumonia in children under five years of age, numbered 145 or 44.8% of the total deaths from these two causes, while in infants under 1 year of age there were 47 deaths or 14.5%, and at the other extreme of life viz. :—65 and upwards, there were 55 deaths or 17.02%.

The monthly record of the deaths is:—

Disease	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Bronchitis	11	12	11	12	8	7	17	1	1	6	14	7	107
Pneumonia	19	23	8	20	10	12	35	6	6	5	40	32	216
Totals	30	35	19	32	18	19	52	7	7	11	54	39	323

INFLUENZA.

A few cases of this disease have occurred each year for many years past. During 1918 the disease became epidemic all over England and Wales and with a wide distribution over the civilized world.

The first wave of the epidemic appears to have begun in May giving a total number of deaths to the end of August of 33. The second wave with a considerably greater number of deaths, 218, occurred during the last quarter of the year.

The deaths in the months that they occurred are set out below :—

April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1	—	4	26	2	—	4	143	71	251

The age and sex distribution of persons dying from Influenza and respiratory complications are as follows:—

Disease.	Under 1 year		1 to 2 years		2 to 5 years		5 to 15 years		15 to 25 years		25 to 35 years		35 to 45 years		45 to 55 years		55 to 65 years		65 yrs. & up.		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Influenza	...	4	3	4	3	13	21	20	18	12	23	20	33	9	12	10	13	8	11	9	5	251
Bronchitis	...	19	10	5	6	3	2	1	1	1	—	1	1	1	—	3	2	9	8	13	21	107
Pneumonia	...	10	8	21	14	25	22	13	6	4	7	9	5	7	11	12	3	14	4	15	6	216

In 1917 the deaths from Bronchitis and Pneumonia amounted to 179, as opposed to 323 during the present year. It is obvious that the great increase in the deaths from these causes is associated to a large extent with the Influenza epidemic and the increase in the deaths from Bronchitis and Pneumonia might well be considered to be deaths from Influenza, this would bring the deaths from Influenza up to 395 and would give a death rate from this disease of 5.8 per 1,000, The actual deaths registered as being due to Influenza 251 form 16.7% of the total deaths.

Table showing deaths from Influenza and respiratory complications each week of the year.

Week ending :—

Disease.	1-5th Jan.	6th Jan.	13th Jan.	19th Jan.	26th Jan.	2nd Feb.	9th Feb.	16th Feb.	23rd Feb.	2nd Mar.	9th Mar.	16th Mar.	23rd Mar.	30th Mar.	6th Apl.	13th Apl.	20th Apl.	27th Apl.	4th May	11th May	18th May	25th May	1st June	8th June	15th June	22nd June	29th June	6th July
Influenza ...															1												3	9
Bronchitis ...			2	6	2	1	2	3	2	5	1	1	7	3	4	1	4	3			3	2	3	1	2	1	1	5
Pneumonia ...	1	8	3	3	4	5	7	1	4	8	3	1	1	2	4	3	5	4	7	3		1	3	3	2	1	2	11

Week ending :—

Disease.	13th July	20th July	27th July	3rd Aug.	10th Aug.	17th Aug.	24th Aug.	31st Aug.	7th Sept.	14th Sept.	21st Sept.	28th Sept.	5th Oct.	12th Oct.	19th Oct.	26th Oct.	2nd Nov.	9th Nov.	16th Nov.	23rd Nov.	30th Nov.	7th Dec.	14th Dec.	21st Dec.	28th Dec.	29th-31st Dec.	Total.
Influenza ...	10	7	1			1	1										10	19	25	36	53	35	21	12	3	4	251
Bronchitis ...	7		6	1			1				1		1		1	2		2	2	7	3	3	2	1		2	107
Pneumonia ...	14	10	2	5	2	1			1	2			4	1	2	1	1	9	9	6	13	11	11	11	2	2	216

PREVENTION OF THE SPREAD OF INFUENZA.

The date of November 30th appears to have been about period when the disease was most prevalent. At this time School closure was recommended and the closing of all Schools, including Sunday Schools, was carried into effect from December 2nd until the end of the Xmas holidays.

At the same time the proprietors of Cinema Entertainments were approached to exclude all School children from their premises.

The Staff of Health Visitors was added to by voluntary workers, Midwives were called in to assist, Nurses from the District Nursing Association, and Nurses from Nursing Institutions were enlisted to give help.

House to house visits were paid and the importance of free ventilation of the homes was urged.

Assistance from the Staffs mentioned was greatly in demand by already overworked doctors and was freely given, nursing of sick patients was undertaken and assistance was provided in the nature of Home Helps where the head of the family was laid aside.

Warning notices appeared in the public press, and endeavours were made by notices in the trams to educate the public in preventive measures.

Prophylactic vaccine supplied from the Local Government Board was freely distributed to doctors with the request that reactions and the result of vaccine treatment be notified.

No reactions were reported. Some of the patients inoculated with the vaccine were reported to have contracted Influenza in an extremely modified form, while the majority escaped infection.

Venereal Diseases.

Only one death was recorded from Syphilis in 1918—an infant. Unfortunately very many more persons die from these diseases or their direct sequelæ than appears from the ordinary death returns.

This is due to the fact that the original venereal trouble may not have been discovered and as a consequence only sequelæ may appear on the death certificate.

TREATMENT.

Under the Venereal Diseases Regulations, 1916, an obligation is laid upon the Corporation to prepare and submit a scheme for the treatment of persons suffering from Venereal Diseases to the Local Government Board.

Arrangements for the scheme contemplated could not be carried through owing to the refusal of the Cameron Hospital Authorities to undertake the work. No other scheme has yet been accepted by the Corporation.

In the meantime persons suffering from Syphilis are treated at the Cameron Hospital and treatment is about to be undertaken at the Hartlepool Hospital, though modern treatment does not appear to be available in the Borough for persons suffering from Gonorrhœa.

It is estimated that about 20 per cent. of the population suffers from these diseases, and it is recognised that in seaport towns the sufferers are more numerous than in inland towns.

West Hartlepool patients were treated during the year at the Cameron Hospital, the Sunderland Infirmary, the Newcastle Infirmary, and at the Bristol General Hospital.

The total West Hartlepool patients treated at these 4 centres was 186—105 males and 81 females,

In the following table, the number of patients treated at each centre, together with the different forms of the disease, are shown :—

FORM OF DISEASE.	Centre.				
	Cameron Hospital	Sunderland	Newcastle	Bristol	Total
Syphilis only	147	1	2	—	150
Soft Chance only	3	—	—	—	3
Gonorrhœa	—	—	—	3	3
Syphilis and Soft Chance ...	8	—	—	—	8
Syphilis and Gonorrhœa ...	9	—	—	—	9
Gonorrhœa and Soft Chance	4	—	—	—	4
Syphilis, Soft Chance and Gonorrhœa	—	—	—	—	—
Conditions other than Venereal	9	—	—	—	9
Total	180	1	2	3	186

The number of persons treated with Salvarsan or its substitutes was 150.

The examinations of Pathological material :—

	For detection of			For Wassermann Reaction
	Spirochetes	Gonococci	Other Organisms	
(a) Specimens which were examined at and by the Medical Officer of the Treatment Centre	—	—	—	—
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved Laboratory	—	—	—	81

In the table below, are given the Salvarsan substitutes used in the treatment of Syphilis, together with the usual initial and final doses,

Centre	Salvarsan		Kharsivan		Neo-Kharsivan		Diarsenal		Arsenobillon		Nov-arsenobillon		Galyl		NUMBER OF DOSES
	Initial Dose	Final Dose	Initial Dose	Final Dose	Initial Dose	Final Dose	Initial Dose	Final Dose	Initial Dose	Final Dose	Initial Dose	Final Dose	Initial Dose	Final Dose	
Cameron Hospital ...											.2 grs	.6 grs			8
Sunderland ...			.3 ^c grs	.4 ^c grs	.3 ^c grs	.6 ^c grs							.15 ^c grs	.4 ^c grs	Males Females 8 10
Royal Victoria Infirmary Newcastle ...	Males 0.3 Females 0.2	Males 0.4 Females 0.3	Males 0.3 Females 0.2	Males 0.4 Females 0.3	Males 0.3 Females 0.2	Males 0.4 Females 0.3	Males 0.3 Females 0.2	Males 0.4 Females 0.3	Males 0.3 Females 0.2	Males 0.4 Females 0.3	Males 0.3 Females 0.2	Males 0.4 Females 0.3			8
Bristol General Hospital ...											.45 grs	.9 grs			7

A treatment centre for Venereal Diseases should be set up as soon as possible, with an Assistant Medical Officer in attendance who has had modern experience in their treatment.

It is recognised that "irrigation" forms the most important part of the treatment for Gonorrhœa, and if such a centre were provided and opened at convenient times it would be possible to train the patients to carry out this form of treatment at the centre.

PULMONARY TUBERCULOSIS.

175 cases of this disease were notified.

In previous years the number of cases are shown;—

Year	...	...	1912	1913	1914	1915	1916	1917	1918
Number of Notifications			164	211	112	127	104	134	175

The deaths from this cause for the past five years are as follows;—

Year	No. of Deaths. in West Hartlepool.			Death Rate	Death Rate England and Wales	
1914	...	70	...	1.07	...	1.04
1915	...	69	...	1.06	...	1.16
1916	...	60	...	.92	...	1.18
1917	...	70	...	1.07	...	1.27
1918	...	75	...	1.1	...	2.1

There is little doubt that privations caused by war conditions, and the more general employment of women and young people account to a large extent for the increase in this disease. It must also be remembered that a number of men suffering from this complaint were discharged from the army and navy, many of them who previously appear to have been healthy.

The notifications distributed according to the wards, were as follows :—

North	West	Park	S. West	S. East	Central	N. East	Seaton	Total
24	12	12	35	22	36	19	15	175

The ages of the patients notified and the age at which death occurred are given below :—

Ages.		Cases notified.		Deaths registered.		Percentage mortality.
Under 5 years	...	8	...	1	...	12.5
5 to 10	„	32	...	—	...	—
10 to 15	„	23	...	5	...	21.7
15 to 20	„	18	...	8	...	44.4
20 to 25	„	20	...	5	...	25
25 to 35	„	34	...	12	...	35.2
35 to 45	„	21	...	4	...	19.04
45 to 55	„	14	...	9	...	64.2
55 to 65	„	5	...	1	...	20
65 and upwards	...	—	...	—	...	—
Totals	...	175	...	45	...	25.7

In the following list is given the ages of patients dying in 1918 who had been notified in previous years :—

Age at Death.		No. of Deaths.
Under 5 years	...	—
5 to 10	„	—
10 to 15	„	—
15 to 20	„	4
20 to 25	„	4
25 to 35	„	8
35 to 45	„	8
49 to 55	„	5
55 to 65	„	—
65 and upwards	...	1
		<hr/> 30 <hr/>

85 males and 90 females were notified, giving a mortality rate per 1,000 amongst the males of .42 and amongst the females of .67.

In the previous year, the notifications of males exceeded the notifications of females by 14.

The notifications this year seem to indicate that the employment of female labour has played a part in increasing this disease amongst females.

Other Forms of Tuberculosis.

During 1918—87 cases were notified and amongst these there were 31 deaths.

The cases were distributed through the wards as follows :—

North	West	Park	S West	S. East	Central	N. East	Seaton	Total
12	7	9	13	14	14	9	9	87

The age incidence of Non-Pulmonary Tuberculosis is given below :—

Ages.	Cases Notified		Deaths amongst		Percentage	
		1918.		these cases.		Mortality.
Under 5 years	...	26	...	13	...	50.
5 to 10	„	25	...	2	...	8.
10 to 15	„	17	...	2	...	11.7
15 to 20	„	6	...	1	...	16.6
20 to 25	„	2	...	1	...	50.
25 to 35	„	7	....	—	...	—
35 to 45	„	3	...	—	...	—
45 to 55	„	—	...	—	...	—
55 to 65	„	1	...	—	...	—
65 and upwards	...	—	...	—	...	—
Total	...	87	...	19	...	21.6

The following list gives the ages of patients dying in 1918 who had been notified as suffering from Non-Pulmonary Tuberculosis in previous years :—

Age at Death.		No of Deaths.	
Under 5 years	...	4	
5 to 10	„	2	
10 to 15	„	1	
15 to 20	„	3	
20 to 25	„	—	
25 to 35	„	—	
35 to 45	„	1	
45 to 55	„	1	
55 to 65	„	—	
65 and upwards	...	—	
		12	

An analysis of the sex incidence total deaths 1918, shows that 44 males were attacked by the disease as compared with 43 females. These figures give a mortality rate amongst the males of .16 and amongst the females .29.

Comparative statistics for Non-Pulmonary Tuberculosis for the past three years are :—

	1916	1917	1918
Number of cases notified	103	117	87

Since 1912 the mortality from this cause has been as follows :—

Year	No. of Deaths		Death Rate		Death Rate England & Wales	
1913	...	58	...	.89	...	.34
1914	...	39	...	.6	...	.32
1915	...	49	...	.75	...	.34
1916	...	49	...	.75	...	.35
1917	...	50	...	.76	...	.36
1918	...	31	...	.45	...	.05

The age and sex of each patient with the particular part affected by Tuberculosis, will be found in the following table.

ALL NOTIFIED CASES OF TUBERCULOSIS, 1918.

AGES.	Pulmonary			Abdominal			Meninges			Joints			Spine			Other Organs			Disseminated			All Forms		
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total
Under 1 year	—	—	—	1	1	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	1	2	3
1 and under 2	1	2	3	—	3	3	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	3	7	10
2—3	1	—	1	—	—	—	1	2	3	—	—	—	—	—	—	—	—	—	—	—	—	5	3	8
3—4	—	1	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	3	3	6
4—5	3	—	3	—	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	6	1	7
5—10	14	18	32	—	2	2	1	1	2	1	—	—	—	—	—	—	—	—	—	—	—	29	28	57
10—15	8	15	23	3	1	4	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	18	22	40
15—20	9	9	18	1	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13	11	24
20—25	9	11	20	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	9	13	22
25—35	14	20	34	—	2	2	—	1	1	1	—	—	—	—	—	—	—	—	—	—	—	15	26	41
35—45	14	7	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	9	24
45—55	9	5	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	5	14
55—65	3	2	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3	6
Over 65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All Ages	85	90	175	5	12	17	7	6	13	1	1	2	—	1	1	27	22	49	3	2	5	129	133	262

Notifications of Tuberculosis were received from the following sources :—

		Pulmonary.	Non-Pulmonary.
General Practitioners	...	96	53
Medical Officers of Institutions		13	1
School Medical Officers	...	39	27
Medical Officer of Health	...	27	6
Total	...	175	87

The following table shews the relationship of all cases of Tuberculosis, during 1918, whatever the form of the disease to the housing conditions of the sufferer :—

TYPE OF HOUSE	No. of Houses	Total No. of occupants	No. of occupants per room including living room	No. of occupants per house	Largest No. of occupants in one house	Smallest No. of occupants in one house
1 Room	—	—	—	—	—	—
2 Rooms	11	54	2.45	4.9	7	3
3 „	59	360	2.06	6.1	13	2
4 „	29	179	1.54	6.1	14	2
5 „	20	107	1.07	5.35	11	3
Over 5 Rooms	8	56	—	7.	11	2

As invariably happens, it will be seen that as the home conditions improve so there is a diminution in the number of cases of Tuberculosis. In other words, overcrowding, bad ventilation, etc., predispose to this disease—59 cases of Tuberculosis occurred in houses with three rooms, where the number of occupants in each room (including the living room) were 2.06. As the number of occupants per room are reduced, with the resulting improvement in ventilation, so the disease occurs in fewer instances in the household.

BACTERIOLOGICAL WORK.

172 samples of sputum were examined in the Health Department.

Of these 35 were Positive (Tuberculosis).

137 were Negative (Non-Tuberculosis).

Negative results only indicate the absence of tubercle bacilli from the sputum, they afford little indication as to whether the patient from whom the sputum has been taken is suffering from the disease or not.

Positive results shew that the disease is present.

Negative results should be discounted accordingly and if the disease is suspected further samples should be submitted for examination.

TUBERCULOSIS.

The number of deaths at intervals after notification for all cases are shown below :—

Year	Deaths before Notification	Deaths after Notification.					
		Under 1 month.	Under 6 months.	Under 12 months.	Under 18 months.	Under 24 months.	Over 24 months.
1915	20	26	22	20	5	2	—
1916	24	19	41	15	2	0	—
1917	17	30	32	22	3	3	—
1918	17	23	26	13	9	6	12

The number of deaths at intervals after notification for those cases notified in 1918 are :—

Deaths before Notification.	Under 1 month.	Under 6 months.	Under 12 months.	
17	22	20	4	Total 63

It may be stated that treatment for those patients dying under 6 months from the time of notification would have been of little benefit.

These deaths so recently after notification indicate either a disease rapidly advancing or that the disease was far advanced when the notification was made. To enable a cure to be made, the disease must be discovered in its very early state, just at the time, indeed, when the diagnosis of Consumption is so difficult. When the signs of the disease are manifest, and tubercle bacilli are numerous in the sputum, only those persons extremely resistant to the disease can hope for more than temporary improvement.

PARTICULARS OF TREATMENT—PULMONARY TUBERCULOSIS.

The notified cases numbered 175.

114 of these made application for treatment under the Corporation Scheme and were examined by the Medical Officer.

At the time of their examination by the Tuberculosis Officer, their classification according to the stage of the disease, was as follows :—

	1st.	2nd.	3rd.	Total
Insured ...	12	29	11	52
Uninsured ...	4	4	5	13
School Children	21	22	6	49
Total ...	37	55	22	114

Treatment was advised as follows :—

	Sanatorium.	Dispensary.	Domiciliary.	Hospital.	Shelters
Insured ...	30	18	4	—	—
Uninsured ...	4	7	2	—	—
School Children	31	9	9	—	—
Total ...	65	34	15	—	—

Practically all of the patients had more than one form of treatment. Sanatorium treatment after observation at the dispensary, is usually followed by dispensary treatment.

The following shows the result of treatment for these patients:—

	Cured	Improved	Stationery	Retro- gressing	Died	Not Attending	At work	Total
Insured ...	2	24	11	1	7	4	3	52
Uninsured	1	7	1	—	2	1	1	13
School Children	4	33	3	—	2	7	—	49
Total ...	7	64	15	1	11	12	4	114

PARTICULARS OF TREATMENT NON-PULMONARY TUBERCULOSIS.

The number of persons notified as suffering from tuberculosis of parts other than the lungs, was 87, and of these, 38 applied for treatment.

The classification of the applicants was as follows:—

From—	Insured Persons	Uninsured	School Children
	4	5	29

The treatment advised was:—

	Dispensary	Hospital	Domiciliary	Shelters	Sanatorium
Insured ...	3	—	—	—	1
Uninsured ...	4	—	—	—	1
School Children	23	4	1	—	1
Total ...	30	4	1	—	3

The results of the treatment were:—

	Cured	Improved	Stationery	Dead	Not attending
Insured ...	—	2	2	—	—
Uninsured ...	—	2	1	—	2
School Children	2	17	2	1	7
Total ...	2	21	5	1	9

EXAMINATIONS, ATTENDANCES, &c.

284 special examinations of notified persons were made :—

Insured.	Uninsured.
125	159

No record was kept of numerous partial examinations carried out from time to time.

196 patients made 2,159 attendances at the dispensary.

The treatment recommended was as follows —

	Insured.	Uninsured.	Total.
Domiciliary	19	11	30
Dispensary	55	82	137
Sanatorium	52	48	100
Hospital	1	5	6
Observation	—	12	12
Total	127	158	285

TUBERCULOSIS VISITORS.

Nurses Nixon and Robinson paid 1,840 visits to tuberculous persons. Of these visits, 257 were primary and 1,583 were re-visits.

These visits to the homes of patients are extremely necessary and productive of good, as certain structural defects such as windows that will not open, and certain negligences such as windows that are kept shut are often found. By reporting 'wants' in the home to the After Care Committee help is secured for those in need.

THE SHELTER COLONY.

These shelters, formerly the property of the West Hartlepool Society for the prevention of Tuberculosis, were taken over by the Corporation after approval by the Local Government Board, and now form part of the Tuberculosis Scheme.

There are 8 wind adjusting shelters, together with a combined sitting room and kitchen. One of the stipulations made by the Board was that the shelters should only be used by 'early' cases of Tuberculosis or cases that would not require constant medical supervision. Hence the demand for them is somewhat limited.

5 adults and 3 school children made use of these shelters during the summer months.

Besides these shelters, there are other portable shelters the property of the Corporation, which are lent to patients desiring to make use of them in their gardens etc., as sleeping accommodation.

After Care Work.

The expenses incurred by the Committee carrying on this work have been kindly compiled by the Secretary, Mr. J. W. Ridley, for the two years 1917 and 1918.

AFTER CARE COMMITTEE.

		Year 1917.		Total Cost		
Nourishment etc. supplied		Number of Patients		£	s	d
Milk and eggs	...	43	...	132	2	7
Clothing	...	25	...	25	5	1
Provisions	...	11	...	8	7	6
Meat	...	1	...	1	2	9
Train-fares	...		...	3	8	8
				<u>£170 6 7</u>		

		Year 1918.		Total Cost		
Nourishment etc. supplied		Number of Patients		£	s	d
Milk and eggs	...	42	...	122	12	5
Clothing	...	18	...	27	10	2
Provisions	...	18	...	5	10	8
Meat	...	1	...	2	14	2
Train-fares (recoverable from Corporation)				3	8	8
				<u>£161 16 1</u>		

Dental treatment was also given to several patients at a cost of £1 8s. 6d.

The whole of the expenses in connection with the After-Care treatment of Tuberculous patients were generously contributed by W. Ropner, Esq., J.P., and the late Sir Stephen Furness, M.P., and Mrs. Matthew Gray.

It is hoped in the very near future to considerably extend the extremely important and necessary work of this Committee.

DISINFECTION AFTER TUBERCULOSIS.

This important work is carried out in all cases of death from this disease or when a person suffering from Consumption moves from one house to another. The germs of this disease can remain alive in the dust in a house for many months, and unless thorough disinfection is carried out healthy persons coming into the house may be infected.

In 125 instances rooms or houses were disinfected.

PUERPERAL FEVER.

A similar number of cases to those occurring in 1917 were notified this year, namely, 4.

During the past 5 years the number of cases brought to the notice of this department were as follows :—

Year	No. of Cases.		No. of Deaths.		No. of Cases per 1,000 births.		No. of Deaths per 1,000 births.	
1914	...	3	...	—	...	1·58	...	—
1915	...	2	...	2	...	1·19	...	1·19
1916	...	4	...	1	...	2·4	...	·6
1917	...	4	...	1	...	2·7	...	·7
1918	...	4	...	1	...	2·5	...	·6

Arrangements exist whereby patients suffering from this disease are admitted to the Port Sanitary Infectious Diseases Hospital when accommodation is available. The other alternatives are either for the patient to be admitted to the Workhouse Infirmary or to be nursed at home.

For the home nursing of these cases the services of trained nurses are all important and they could be provided by arrangements being made either with the District Nursing Association or with one of the Nursing Homes.

2 of the patients were removed to the Infectious Diseases Hospital—both recovered,

MIDWIVES' ACT.

There were 8 midwives on the roll at the beginning of the year:—

Mrs. Bennett, 18, Hampshire Street ; Mrs. Dale, 4, Christopher Street ; Mrs. Craven, Lifeboat Cottages, Seaton Carew ; Mrs. Skeen, 18, Clarendon Road ; Mrs. Vodden, 27, South Scarbro' Street ; Mrs. Gill, 13, Hopps Street ; Mrs. Kelsey, 36 Benson Street ; Mrs. Preston, Brunswick Street.

The number of midwives in the Borough had fallen from 14 in 1914 to 8 in 1917, and consequently in January of this year it was decided to attract midwives to the district by the guarantee of a small sum as a subsidy to be repaid later to the Corporation. The sum of £30 with which this scheme was started, was soon found to be too low, and in May the amount payable to the midwife was increased to £80 per annum. Under the new arrangements the midwife for whom private practice was encouraged, was permitted to earn £100 before being asked to make a return of her subsidy to the Corporation. Over this amount 50% of her earnings were payable to the Corporation until the amount by which she had been subsidised had been paid off.

Under the terms of this agreement a midwife was employed at Seaton Carew, her services to be available for the County Authority in respect of confinements in the adjacent rural district and the Seaton Snook area. For the services of this midwife 50% of the subsidy was paid by the County Authority.

Notifications were received from the Midwives that medical help had been sent for in the following cases :—

	Number.
Still Births	23
Premature Births	13
Prolonged labour	3
Retained Placenta	1
Other Maternal Complications ...	24
Child Complications	35
Total ...	99

Arrangements approved by the Local Government Board now exist whereby the Corporation agree to pay the expenses of Doctor or Midwife called in to necessitous cases of confinement.

These arrangements came into operation in May 1917.

Only one complaint against a midwife of a serious nature necessitated an interview with the Medical Officer. The offence was ' Failure to carry out her duties ' under the rules of the C.M.B. 21 (5).

After an explanation which appeared satisfactory the case was not proceeded with.

12 visits were paid to midwives by the Health Visitors, apart from inspections, to investigate minor complaints against them.

OPHTHALMIA NEONATORUM.

This definition of this disease is "a purulent discharge occurring from the eyes of a child within twenty-one days from the date of its birth."

41 cases of Ophthalmia Neonatorum were notified in 1918.

36 " " " " " 1917.

42 " " " " " 1916.

21 " " " " " 1915.

25 " " " " " 1914.

The rate per 1,000 births is 27.8

Results of treatment are shewn below.

Result.			Number of Cases.
Complete Recovery	...	...	28
Lost trace of	...	...	2
Weakness in Eyes	...	...	1
Died	...	...	3
Carried forward	...	...	7

The cases were treated by :—

Attended by Doctor and Health Visitor	8
„ „ Health Visitor and Midwife	15
„ „ Health Visitor and Parents	4
„ „ Doctor and Midwife	14
Total	<u>41</u>

8 of the 41 patients were discovered by the Health Visitors.

To the total cases, 344 visits were paid.

Treatment of these cases should be carried out by trained nurses through arrangements with one of the organisations supplying nurses.

BACTERIOLOGICAL WORK.

The following work was done by the Medical Officer of Health :—

Phthisical sputum examined :—

Number of cases, 172.

		1918
Positive Result	...	35
Negative Result	...	137
		<u>172</u>

Diphtheria swabs examined, 14.

		1918.
Positive Result	...	4
Negative Result	...	10
		<u>14</u>

CONTAGIOUS DISEASES OF ANIMALS.

Mr. Benjamin Hoadley, M.R.C.V.S., Veterinary Snrgeon to the Corporation reports as follows :—

“ There have been dealt with during 1918, 3 cases of suspected Swine Fever, which upon examination by myself, and afterwards by the Veterinary Officers of the Board of Agriculture, were not confirmed.

Six cases of Mange were dealt with, which were not the total number that existed within the Borough. Many cases are hidden, hence the continued spread of the disease which is most contagious.”

CLEANSING STATION.

The number of persons making use of this department was :—

School Children	...	27	} Applied to be Cleansed.
Soldiers	...	17	
Sailors	...	2	
Total	...	<hr/> 46 <hr/>	

All of these had their clothes disinfected at the same time as bodily cleansing was being effected.

DISINFECTION.

Following any infectious disease, disinfection is carried out free of charge.

Disinfection of a room is carried out either by spraying with a 40% solution (strength 1 in 40) of Formic Aldehyde, assisted at times by a Formalin Lamp.

Disinfection by burning Sulphur (Sulphurous Acid Gas) is occasionally used, especially where vermin are discovered.

Filthy or verminous houses are first sprayed or fumigated and then notices are served to strip off the paper, cleanse and limewash.

Brushes are lent to persons free of charge and lime is given for this purpose.

DETAILS OF DISINFECTION.

Rooms Disinfected (Infectious Cases) ...	275
Rooms Fumigated (Vermin)... ..	24
Total ...	<hr/> 299

The following articles were removed for disinfection by steam under pressure :—

Articles	Number.
Beds	360
Pillows and Bolsters	639
Carpets and Rugs	368
Articles of Clothing	733
Sheets, Blankets, etc.	1134
Sundries	<hr/> 785
Total ...	4019

Occasionally, following cases of infection, requests are made that certain articles be destroyed.—These numbered 50.

Requests were made for disinfection of military outfit as follows :—

Articles.	Numbers
Beds	84
Pillows	53
Rugs	7
Clothing	3648
Sheets, Etc.	1502
Sundries	<hr/> 2166
	7460

WATER SUPPLY TO THE BOROUGH.

The following is a report by the Borough Analyst on a sample of water sent to him and taken from the town supply :—

C. J. H. STOCK, B. Sc., F.I.C.,
Analytical & Consulting Chemist.

Laboratory & Assay Office,
Darlington,
17th December, 1918.

I hereby certify that I have analysed the undermentioned Sample of Company's Water No. 525 received from Mr. J. T. Durkin, Inspector, West Hartlepool, on the 14th December, 1918, and I find as follows :—

			Grains per Gallon.
Chlorine as Chlorides	...	...	7.3850
Nitrogen as Nitrates	...	...	.0807
Ammonia	...	...	Faint trace
Albuminoid Ammonia	...	...	.0021
Oxygen Absorption	...	...	None
Injurious Metals	...	...	None
Total solid matter dried at 100 degrees C.			<u>66.5000</u>
Colour and Appearance in 2 foot tube			Colourless, fairly clear
Odour when heated to 100 Degrees Fahr.			None

MICROSCOPICAL EXAMINATION.

Very minute deposit from $\frac{1}{2}$ gallon consisting of particles of Earthly and Vegetable Matter, one or two fragments of Fungus, a few Cotton Fibres and many Starch Granules.

OBSERVATIONS.

Chemically this sample is perfectly satisfactory, and while the results of the Microscopical Examination fail to reveal the presence of any Micro-organisms, I am of opinion that the presence of Starch Granules should be accounted for in some satisfactory manner. These may be present entirely through accident, and the analysis as a whole indicates this, but the matter should be put beyond all doubt.

CYRIL J. H. STOCK,

With reference to this sample of water, a copy of the Analyst's certificate was forwarded to the Hartlepool Gas and Water Company for their information.

In the meantime another sample was obtained from another part of the Town and this water was certified to be perfectly satisfactory.

WELLS IN THE BOROUGH.

So far as is known no wells exist in the Borough.

DAIRIES, COWSHEDS AND MILKSHOPS.

At the end of 1918, there were 65 milkshops, 21 purveyors of milk and 3 cowsheds registered.

56 inspections to this class of premises were paid.

COWSHEDS.—On the whole these have been satisfactory.

MILKSHOPS.—4 new milkshops were registered and 2 having given up the sale of milk were removed from the register.

COMMON LODGING HOUSES.

The Common Lodging Houses on the Register at the end of the year numbered 11, accommodating 303 lodgers. In 1917 there were the same number of Lodging Houses.

No new Common Lodging Houses have been opened.

Of the 11 Houses on the Register, 7 are registered under Sec. 69 (2) of the Public Health (Amendment) Act, 1907.

Generally the houses have been kept in a cleanly and satisfactory condition, and no legal proceedings were necessary.

The following is a list of the Registered Common Lodging Houses in the Borough, with the number of lodgers allowed :—

No.	Situation.	Registered No. of Lodgers.		No. of Rooms.
1.	25, York Street ...	27	...	8
2.	18, Rokeby Street	18	...	6
3.	138, Burbank Street	33	...	8
4.	23, St. John Street	18	...	5
5.	7, Tennant Street	30	...	8
6.	3, Redworth Street	12	...	2
7.	16, Mainsforth Terrace	56	...	23
8.	2, Edward Street ...	22	...	4
9.	29, George Street...	11	...	3
10.	33, George Street...	7	...	3
11.	"Albion Chambers," George Street	69	...	7
Total ...		303		77

BOROUGH ABATTOIR AND MEATSHOPS.

201 visits were paid to the Fishshops and Meatshops in the town irrespective of those visits paid to the Abattoirs.

The meatshops in the town, as a whole, have maintained a high standard of cleanliness.

BEASTS.—At the Abattoir 74 beasts were examined. Of these—

2 suffering from Tuberculosis were condemned entire.

2 „ Inflammation „ „

53 „ slightly from Tuberculosis were condemned in part.

15 with local abscesses and diseased organs, apart from Tuberculosis,
had the affected parts removed.

2 examined were passed as sound.

74 ... Total

PIGS.—1 suffering from general Inflammation was condemned entire.

3 with Swine Fever were destroyed.

1 „ slight Tuberculosis had the affected portions destroyed.

1 „ local disease „ „ „

2 examined were passed as sound.

Total 8

SHEEP—1 suffering from general Inflammation was condemned entire.

2 with local disease had the affected portions destroyed.

2 examined were passed as sound.

Total ... 5

The animals slaughtered during the past 5 years, at the Abattoir, are given below :—

Animals Slaughtered	1914	1915	1916	1917	1918
Beasts ...	4,239	4,351	4,430	4,774	3,120
Sheep and Lambs	13,210	13,129	12,466	6,721	14,213
Calves ...	359	328	180	299	24
Pigs ...	5,976	7,555	6,285	4,954	959

There are no private slaughter houses in the Borough.

The following articles of food examined by the staff of the Health Department were destroyed as being unfit for food :—

4 Beasts	20 lbs Smoked Bacon
1 Pig	14 „ Pork Sausage
1 Sheep	20 „ Black Puddings
23 Forequarters of Frozen Beef	2 Boxes Frozen Fish
8 Hindquarters „ „	23½ „ Kippers
365½ Frozen Meat	1 Box Bloaters
2 Tins Corned Beef	10 Boxes Fish Cakes
13½ lbs Meat	3 56 lb Boxes Butter
110 „ Frozen Boneless Beef	199¼ lbs Butter
or Cow Clods	5 Doz. Pork Pies

1 Tin of Mutton	160 Pies
1 „ Rabbit	33 Small Buns
2 Rabbits	4½ lb Cheese
281½ lbs Bacon	3 Churns Milk
199 „ Ham	5 Gallons Milk
5½ „ Cooked Ham	5 Tins Condensed Milk
	1 Tin Evaporated Condensed Milk

HOUSES-LET-IN-LODGINGS.

To this class of house, 51 inspections were made.

The number of registered house houses-let in lodgings in the Borough is 22, the same as in the previous year.

NUISANCES REPORTED DURING 1918.

				Number
Drains not properly trapped	...	...	...	8
„ Defective	...	...	...	8
„ Stopped ...	...	...	...	59
Dirty dwellings and workshops	...	...	...	11
Defective yard pavement	...	...	...	20
„ spouts and fallpipes	...	...	...	86
„ dwelling house roofs	...	...	...	40
„ privies and ashpits	...	...	...	13
Overcrowded dwellings	...	...	...	3
Dirty and defective bakehouse	...	...	...	1
Defective Water Closets	...	...	...	189
Insufficient Water Closets	...	...	...	1
Accumulation of Manure	...	...	...	2
Animals improperly kept	...	...	...	3
Defective or absent dustpans	...	...	...	3
„ Ashcloset doors	...	...	...	25
Dirty rain-water wells	...	...	...	9
No supply of drinking water	...	...	...	21
Other nuisances	...	...	...	202
				<hr/>
		Total	...	709

INSPECTIONS MADE, Etc.

1,867	Dwelling Houses, Shops, and other premises.
92	Visits to Factories and Workshops.
9	„ Bakehouses.
51	„ Houses-let-in-lodgings.
83	„ Common Lodging Houses.
56	„ Dairies, Cowsheds and Milkshops.
201	„ Fish, Fruit and Meatshops.
9	Drains tested with smoke.
8	„ „ „ water.
10	„ examined.
111	Complaints received attention.
365	Informal notices served.
56	Statutory notices served.

PROSECUTIONS BEFORE MAGISTRATES BY THE
SANITARY AUTHORITY.

Date.	Nature of Offence.	Fines.	Costs.	Orders made.
Jany. 30th.	Milk not of the nature, quality and substance demanded ...	£1	£1	
Mar. 30th.	Tinned Rabbit which was unsound, unwholesome and unfit for food of man ...	...	...	Dismissed
„ 8th.	Tea not of the nature, quality and substance demanded ...	...	...	Withdrawn
„ 8th.	Do. do.	£5	£1/1	
May 15th.	Milk not of the nature, quality and substance demanded ...	£1	10/6	
Sept. 27th.	Do. do.	£2	10/6	
Nov. 22nd.	For ceasing to occupy a house in which was a case of Scarlet Fever, without having such house disinfected to the satisfaction of a registered Medical Practitioner	10/-		
„ 22nd.	Not abating a nuisance ...	...		Order made for work to be done within 7 days

£9/10 £3/2

FOOD AND DRUGS.

94 formal samples have been taken during the period under review.

79 were certified to be genuine and 15 adulterated or below standard.

Article		Number Taken	Genuine	Doubtful		Adulterated or below Standard
Milk	...	35	22	—	...	13
Condensed Milk	...	2	2	—	...	—
Tea	...	4	2	—	...	2
Cocoa	...	1	1	—	...	—
Coffee	...	4	4	—	...	—
Sugar	...	3	3	—	...	—
Butter	...	6	6	—	...	—
Margarine	...	6	6	—	...	—
Flour	...	7	7	—	...	—
Baking Powder	...	5	5	—	...	—
Bread Improver	...	1	1	—	...	—
Bread	...	2	2	—	...	—
Bun Flour	...	4	4	—	...	—
Cake Flour	...	1	1	—	...	—
Custard Powder	...	2	2	—	...	—
Mustard	...	2	2	—	...	—
Pepper	...	2	2	—	...	—
Lard	...	2	2	—	...	—
Beef Dripping	...	2	2	—	...	—
Vinegar	...	1	1	—	...	—
Ice Cream	...	1	1	—	...	—
Arrowroot	...	1	1	—	...	—
		94	79	—		15

SUMMARY OF SAMPLES TAKEN.

				Number of Samples.
First Quarter	...	...	...	27
Second Quarter	...	...	...	28
Third Quarter	...	...	...	21
Fourth Quarter	...	...	...	18
				94

The following is a list of the samples found to be adulterated or below standard and the action taken in each case :—

Number of Sample	Article.	Result of Analysis.	Remarks.
473	Tea ...	Foreign substances other than tea not less than 23·65% ...	Proceedings instituted. Fined £5. £1/1/0 costs.
474	Tea ...	Foreign substances other than tea not less than 25·67% ...	Summons withdrawn
498	Milk ...	Deficient in non-fatty solids to an extent which corresponds to the addition of 6·00% of water. Deficient in fat to the extent of 12·42 % ...	Fined £1. 10/6 costs.
508	Milk ...	Below standard. ...	No action taken.
509	Milk ...	do. do. ...	do. do.
510	Milk ...	do. do. ...	do. do.
513	Milk ...	do. do. ...	do. do.
517	Milk ...	Addition of water amounting to 2·00% ...	do. do.
521	Milk ...	Deficient in fat to the extent 5·00% ...	do. do.
530	Milk ...	Deficient in non-fatty solids to an extent which corresponds to the addition of 8·36% of water ...	Fined £2. 10/6 costs
531	Milk ...	Below standard ...	No action taken.
536	Milk ...	do. do. ...	do. do.
553	Milk ...	do. do. ...	do. do.
557	Milk ...	do. do. ...	do. do.
560	Milk ...	do. do. ...	do. do.

Of the samples of margarine taken for analysis, one was delivered to the purchaser in a plain wrapper which was not labelled according to the Act. The vendor was cautioned.

MILK AND CREAM REGULATIONS, 1912.

Under the provisions of the Sale of Food and Drugs Acts, and the Milk and Cream Regulations, 1912, 35 samples of milk were taken, and were sent to the Borough Analyst, for examination for the presence of preservative.

There was no trace of any preservatives found.

OFFENSIVE TRADES.

19 visits were paid to this class of premises (excluding fish shops).

Bye-laws regulating offensive trades came into operation in July, 1917.

A list of the offensive trades, is shown below :—

Trade				Number
Fried Fish Dealers	...	...	...	51
Marine Stores	...	...	...	6
Gut Scrapers	...	...	...	2
Tripe Boilers	...	...	...	3
Tallow Melters	...	...	...	5
Bone Boilers	...	...	...	1

PRIVY MIDDENS.

The work of converting these to the water carriage system has fallen behind owing to the difficulty in obtaining the necessary labour, and owing to the high cost of materials.

8 privies and ashpits were converted into water closets and ash receptacles.

The receptacles provided, were as follows :—

	No.
Circular pans (removable galvanized iron receptacles, having a tight fitting cover and a capacity of 3·5 cubic feet)	8
Tipping Ashbins (fixed receptacles) ...	0

No additional water closets, &c., were provided in Factories during 1918.

The Ward distribution of the conversions which have taken place during the past twelve months, is as follows :—

Wards	Privies and ashpits converted into W.C.'s and Dry Ashbins.
North	0
West	0
Park	2
Sonth-West... ..	2
South-East	1
Central	3
North-East	0
Seaton	0
Total	8

The following table shows the number of privy middens converted into water closets, etc., each year from 1907 to the end of 1918 :—

Year.	Number.
1907	81
1908	33
1909	36
1910	33
1911	125
1912	223
1913	724
1914	254
1915	79
1916	18
1917	8
1918	8

The number of closets of each type in the Borough at the end of 1918 is shown approximately :—

Number of Privies (fixed receptacles) ...	...	2,170
„ Moveable Receptacles (privy pans) ...	...	836
„ Water Closets* ...	...	11,054
„ Hand-flushed Closets ...	...	3
„ Waste Water Closets ...	...	Nil

DRAIN TESTING.

17 drains were tested during the year. Of the total, 8 were in connection with the conversion of privy middens to water closets, 9 tests were made with smoke and 8 by means of water.

The 9 tests with smoke were made on complaint or by request of occupiers or in connection with the Inspector's visits to premises.

HOUSING ACTS.

Although inspections were carried out under the Housing (Inspection of District) Regulations, 1910, these naturally fell below the inspections in former years owing to the absence of 75% of the staff on War Service.

During 1918, 136 dwelling houses were inspected under and for the purpose of Section 17 of the Housing and Town Planning Act, 1909.

10 Cases of overcrowding were detected and dealt with.

As a result of inspections, the following steps were taken :—

1. Number of representations made to Local Authority with a view to the making of Closing Orders ...	...	8
2. Number of Closing Orders made, 1918 ...	...	8
3. „ „ „ served, 1918 ...	...	8
4. Number of Houses which were closed voluntarily after representation of Local Authority without the making of a Closing Order ...	...	0

5. Number of Houses against which Closing Orders were made during 1917 and determined during 1918	0
6. Number of Houses against which Closing Orders were made and determined during 1918 ...	0
7. Number of Houses the defects in which were remedied without the making of a Closing Order ...	16
8. Houses demolished voluntarily by the owners after the making of Closing Orders ...	0
9. Houses demolished voluntarily by owners without the making of Closing Orders ...	2
10. Number of Houses against which Demolition Orders were made during 1918 ...	2
11. Houses Demolished after service of Demolition Orders ...	1
12. Notices served under Section 15. ...	0

Representations made to the Local Authority under Sec. 17 of the Housing and Town Planning Act, 1909 :—

Situation.	Chief Defects.	Action Taken and Result
10 & 12, Harrison Street	Premises empty and in a most ruinous and dilapidated condition ...	Closing Order made
20, South Street ...	do. do. do.	do. do.
4, Sydney Street ...	do. do. do.	do. do.
4, 6, 8, Knowles Street	do. do. do.	do. do.
4, Bridge Street ...	do. do. do.	do. do.

FACTORY AND WORKSHOP ACT, 1901.

The following is a record of the work done in this section during the past year.

The number of Workshops on the Register at the end of the year was 303, made up as follows:—

Workshops ...	...	...	...	294
Domestic Workshops ...	...	...	...	4
Workplaces...	...	...	...	5

FACTORY AND WORKSHOPS ACTS.

12 notices have been received from H.M. Inspector of Factories informing us of defects in Factories and Workshops remediable under the Public Health Acts, and action has been taken as shewn below:—

Premises.	Defects.	Result of action taken.
Rivet, Bolt and Nut Factory ...	Closets for males in a foul state ...	Defects remedied
Joiner's Workshop ...	Unsatisfactory sanitary accommodation ...	do. do.
Whiting Factory ...	Closet for males is very dilapidated and foul. W.C. for females com- municates directly with workroom and is poorly ventilated ...	do. do.
Saw Mill ...	Door of closet for females off its hinges and a suit- able screen in front of this door is very desirable	do. do.
Bakehouse ...	Limewashing overdue ...	do. do.

Premises.	Defects.	Result of action taken.
Shipyard	Sanitary conveniences for women are unsuitable ...	Defects remedied
Saw Mill	Closets for males not properly screened off from the females ...	do. do.
Saw Mill	Sanitary conveniences for women unsuitable ...	do. do.
Carriage and Engineering Factory	Closets for males not sufficiently screened off ...	do. do.
Sawmill	Pail closet for women foul and closet for men very cramped and door partly off its hinges ...	do. do.
Wood, Straw and Fibre Factory	Flushing apparatus of W.C. for females out of order and pan foul ...	do. do.
Printing Factory ...	W.C. for males communicates directly with work-room and is unventilated	do. do.

BAKEHOUSES.

There are 37 Bakehouses on the Register, four of which are underground. In 2 instances it was necessary to require the cleaning of a bakehouse. 9 visits were made.

WORKSHOPS' REGISTER, DECEMBER 31st, 1917.

Nature of Trade.					Number.
Dress and Mantle-making	...	...	...	...	40
Milliners	...	...	...	...	13
Tailors	...	...	...	...	23
Bootmakers and Repairers	...	...	...	...	26
Bakehouses (Retail)	...	...	...	...	36
„ (Wholesale)	...	...	...	...	1
Joiners and Cabinet Makers	...	...	...	...	24
Plumbers	...	...	...	...	19
Blacksmiths	...	...	...	...	13
Upholsterers and French Polishers	...	...	...	...	8
Cartwrights	...	...	...	...	5
Laundries	...	...	...	...	3
Photographers	...	...	...	...	4
Motor and Cycle Repairers	...	...	...	...	6
Fat Renderers	...	...	...	...	2
Tripe Boilers	...	...	...	...	3
Egg Pickling	...	...	...	...	1
Sailmakers	...	...	...	...	3
Picture Framers	...	...	...	...	3
Tinsmiths	...	...	...	...	2
Fish Curers	...	...	...	...	2
Drysalters	...	...	...	...	2
Harness Makers	...	...	...	...	3
Clock and Watch Repairers	...	...	...	...	2
Rag Sorting	...	...	...	...	6
Sawmills	...	...	...	...	2
Miscellaneous	...	...	...	...	42
Total					294

The following tables are included at the request of the Secretary of State:—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES & HOMEWORK.

1. Inspection.

Premises.	No. of Inspections.	Notices.
Factories (including Laundries)	40	7
Workshops (including Workshop Laundries)	52	3
Workplaces (other than Outworkers' premises included in part III. of this report) ...	8	1

2. Defects Found.

Particulars.	Found.	No. of Defects Remedied.
<i>Nuisances under the Public Health Acts :</i>		
Want of Cleanliness ...	0	0
Want of Ventilation ...	0	0
Overcrowding ...	0	0
Other Nuisances ...	1	1
Sanitary Accommodation Insufficient	0	0
Sanitary Accommodation Unsuitable and Defective ...	8	8
Not separate for sexes ...	1	Work in hand

OFFENCES UNDER THE FACTORIES AND WORKSHOPS ACTS.

Illegal Occupation of Underground Bakehouses (s. 101)	0	0
Breach of special sanitary requirements for Bakehouses (s.s. 97 to 100) ...	2	2
Other offences (excluding offences relating to outwork which are included in Part IV. of this report) ...	0	0
	<hr/> 12	<hr/> 11

OFFENCES UNDER THE FACTORIES AND
WORKSHOPS ACTS (continued).

3. Other Matters.

Matters notified to H.M. Inspector of Factories.

	Number.
Failure to affix Abstract of the Factory and Workshops Acts (s. 153)	1
Action taken in matters by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5). Notified by H.M. Inspector	12
Reports (of action taken) sent to H.M. Inspector	12
Underground Bakehouses (s. 101)—	
Certificates granted during the year	0
In use at the end of the year	4

4. Homework.

Number of lists of Outworkers received twice in the year (contained names and addresses of 4 workmen)	12
Number of lists of Outworkers received once in the year (contained names and addresses of 2 contractors)... ..	12
Number of addresses of Outworkers forwarded to other Councils ...	10
Number of Inspections of Outworkers' premises	5
Number found unwholesome and occupiers ordered to cleanse ...	0
Worked stopped because of the prevalence of infectious disease ...	0

All the Outworkers are engaged in the making of wearing apparel.

